

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021871**Date Inspected:** 09-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**BAY 11**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK008A2-002-013, 021, 002, 008

NDT Notification No-08497

**BAY 10**

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK008A5-001-112, 115, 118, 121, 122, 125, 128, 131

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## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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NDT Notification No-08498

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK010A2-001-043, 055, 057, 069, 079, 081

NDT Notification No-08494

This QA Inspector observed the following work in progress:

BAY 10, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220, 040582 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK15B-001-015, 017. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, 040581 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK16B-001-015, 017. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 044511 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK3001A-001-001. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2.

This QA Inspector observed ZPMC qualified welding personnel identified as 056364 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK15A-001-045, 046, 047, 017. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2312-Tc-P4 and WPS-B-P-2313-Tc-P4.

Repair Welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052930 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam stiffener, weld build up 20mm on the edge. Plate identified as BK16A-BKX43G. ZPMC QC Identified as Lijun with temporary welding repair report WRR-B-WR16926. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F)-Repair. For more information see attached picture number 1.

FCAW Process:

# WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

This QA Inspector observed ZPMC qualified welding personnel identified as 057266 Perform Flux Core Arc Welding (FCAW) on OBG Traveler Rail. Joint identified as 31TR2-025. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

## SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 316TR1-09. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

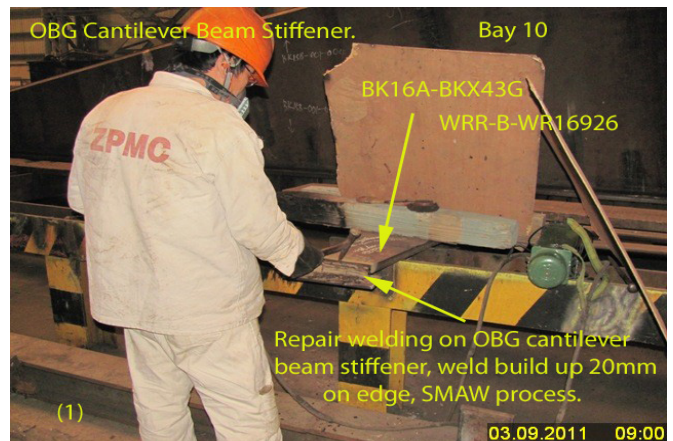
## Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performing MT on OBG Bike path stringer plate to deck plate joint. Bike Path identified as BK009A1-001. For more information see attached picture number 2.

## BAY 11, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 202354 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path. Joint identified as BK008ASD1-002-001, 002, 003, 004. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U4c. For more information see attached picture number 3.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



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## WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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